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**RAND**

*Post-Mobilization  
Training of Army  
Reserve Component  
Combat Units*

*Thomas F. Lippiatt, J. Michael Polich,  
Ronald E. Sortor*

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*Thomas F. Lippiatt, J. Michael Polich,  
Ronald E. Sortor*

*Prepared for the United States Army*

**ARROYO CENTER**

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## PREFACE

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This report investigates the question of how long it takes Reserve Component combat units to mobilize and prepare for combat. The work was undertaken as part of the RAND Arroyo Center's research on force structures, transition to war, and reserve unit training, sponsored by the U.S. Army Forces Command. The work was accomplished within the Manpower and Training program of the Arroyo Center.

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Lynn E. Davis  
RAND  
1700 Main Street  
P.O. Box 2138  
Santa Monica CA 90407-2138

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## SUMMARY

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The United States has responded to recent changes in the international political scene by beginning to substantially reduce military forces. As forces are reduced, questions arise about their structure, particularly the balance between reserve and active forces. The situation is complicated because the Army must be ready to respond in the future to a variety of uncertain contingencies, which may require that combat forces deploy overseas on short notice.

Active forces can respond to such needs but are expensive; reserve forces are more economical but tend to be less ready and hence would take more time to deploy. Vigorous debate has ensued about the share of the future Army force structure that should be accorded to each type of force. That debate frequently centers on the responsiveness of the reserve forces and most frequently on the time required to train reserve combat elements before deployment.

### PURPOSE AND APPROACH

This report estimates how long it takes Reserve Component combat forces to prepare for deployment to a wartime theater. For its data, it draws on four main sources of information:

- Information on the train-up process of the three National Guard round-out brigades that were activated for service in Operation Desert Shield/Storm;
- Analyses and projections of Reserve Component training times made by the Department of the Army Inspector General;
- Training plans followed by Active Component units during peacetime to sustain readiness; and

- An extensive series of interviews with both Active and Reserve Component personnel and observations of the 1992 summer Annual Training cycle for National Guard brigades.

## POST-MOBILIZATION ACTIVITIES REQUIRED

Combining information from these sources, we defined a minimum set of activities that a Reserve Component combat unit would have to complete following mobilization. We identified 12 specific activities in four general categories, as shown in Table S.1.

In defining these activities, we made several assumptions about the status of the units and their peacetime training and maintenance activities. For example, we assumed that units were fully resourced (at Authorized Level of Organization 1) and had at least 90 percent of

**Table S.1**  
Necessary Post-Mobilization Activities

Mobilization Activities	
1.	Mobilize, move from home station to mobilization station
2.	Move from mobilization station to collective training site
3.	Prepare for overseas movement and individual training
Crew/Platoon Training	
4.	Maintenance, gunnery preparation, Conduct of Fire Trainer, crew gunnery skills test
5.	Gunnery Tables IV–VIII <sup>a</sup>
6.	Gunnery Tables XI–XII
7.	Squad drills, platoon lanes, situational training exercises
Training While Task Organized	
8.	Company team lanes and situational training exercises
9.	Company/battalion combined arms live fire exercises
10.	Battalion task force operations
11.	Brigade and battalion task force operations
Training Recovery and Preparation to Move	
12.	Maintenance, recovery, and preparation for loading

<sup>a</sup>Gunnery Tables IV through VIII are sets of engagements and targets for tank and Bradley Fighting Vehicle crews. Tables XI and XII are engagements for platoons (groups of four vehicles).

their personnel. Thus, no additional activity or time has been included to bring a unit up to full strength, to train personnel for military occupational specialty (MOS) qualification, or to fill out its equipment set for deployment. More important, we assumed that the peacetime training program for the units' leadership has allowed them to complete their preparation in parallel with and in conjunction with gunnery and field maneuver training in the post-mobilization phase.

Gunnery Tables IV through VIII are sets of engagements and targets for tank and Bradley Fighting Vehicle crews. Tables XI and XII are engagements for platoons (groups of four vehicles).

## ESTIMATING THE TIME REQUIRED

Once we identified the activities required, we then developed estimates of the time to complete them. We reviewed our data sources to determine how long Army units have typically taken in the past to train for the identified tasks, deriving average times when we had information from multiple units. Not surprisingly, the sources provided a range of times. For example, units plan 21 to 29 days for a brigade to execute Gunnery Tables IV through VIII. These figures provided a basis for our estimates.

Again, we had to make several assumptions about the post-mobilization training process. Specifically, we assumed that:

- Sufficient training support would be available to the unit (normally from an Active Component unit).
- Both gunnery and collective training would take place at one location.
- Units would have to travel from their mobilization station to the collective training site.
- Some simultaneous training would occur, particularly for the higher-level leadership.
- Unit-level maintenance could be sustained as an integral part of the training time allotted.

Given the data and these assumptions, we framed three scenarios for post-mobilization training, which we labeled optimistic, intermediate, and pessimistic. Each scenario reflects a different level of possible success of current Army initiatives to improve the peacetime training of the Reserve Components, ranging from meeting all expectations (the optimistic scenario) to failing in many of them (the pessimistic case). Each case also assumes an increasingly detrimental effect from skill atrophy and personnel turbulence. Table S.2 shows our estimates for the three cases.

**Table S.2**  
**Post-Mobilization Time Estimates**  
**for Three Cases**

Case	Days Required
Optimistic	79
Intermediate	104
Pessimistic	128

Two caveats must be borne in mind when considering these estimates. First, the estimates assume that the leadership can complete its command and control training in parallel with troop training. Should the leadership training extend beyond the predicted period or require the participation of the lower echelons to complete it or verify its success, a longer time would be required. Second, the estimates assume adequate training support from the Active Component. Should that support be unavailable for whatever reason, again the process would require more time.

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## ACKNOWLEDGMENTS

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## GLOSSARY

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AC	Active Component
ALO	Authorized Level of Organization
ARNG	Army National Guard
ARTEP	Army Training and Evaluation Program
AT	Annual Training
BBS	Brigade and Battalion Simulation
BCPC	Bradley Crew Proficiency Course
BGST	Bradley Gunnery Skills Test
CALFEX	Combined Arms Live Fire Exercise
CINC	Commander in Chief
COFT	Conduct of Fire Trainer
CPX	Command Post Exercise
DAIG	Department of the Army Inspector General
DMOSQ	Duty MOS Qualified
FORSCOM	Forces Command
FTX	Field Training Exercise
IDT	Inactive Duty Training
METL	Mission Essential Task List
METT-T	Mission, Enemy, Terrain, Troops, Time Available
MOS	Military Occupational Specialty

MOSQ	Military Occupational Specialty Qualification
NCO	Noncommissioned Officer
NTC	National Training Center
ODS	Operation Desert Shield/Storm
RC	Reserve Component
RO	Round-Out
RU	Round-Up
STX	Situational Training Exercise
TCPC	Tank Crew Proficiency Course
TF	Task Force
TGST	Tank Gunnery Skills Test
TOC	Tactical Operations Center

## **BACKGROUND**

Recent dramatic changes in the international environment have resulted in a move toward a substantial reduction in U.S. military forces. Present indications are that they will shrink even more, which has provoked considerable and occasionally contentious debate about the best way to structure the forces. That debate frequently focuses on two issues: cost and responsiveness. On the one hand, reserve forces are less expensive; but on the other, they tend to be less ready than active forces and thus require more time to respond to emergencies. Clearly, the U.S. military will continue to have both an Active Component (AC) and a Reserve Component (RC). The question devolves to one of how much of each and how to go about making the decision.

Determining the readiness of combat units, whether AC or RC, has always been a challenge. Traditional measures such as ratings from Unit Status Reports have long been recognized as useful for reporting the status of selected aspects of units but not very informative about the readiness of those units to deploy to combat. RC combat units have not deployed to combat very frequently, so little historical evidence exists to support analysis. Operation Desert Shield/Storm provided relevant information and in some quantity, but relatively few reserve units were involved.

A different approach to the problem is to determine exactly what tasks a unit has to perform as part of the mobilization process; to determine, as objectively as possible, how long it takes to perform those tasks by drawing from a number of different databases; and to



ascertain quantitatively how long a given type of combat unit takes to get ready. This methodology would then be a useful tool for determining the ideal AC/RC mix of a given force structure. Being able to estimate with some confidence how long it takes a unit to get ready would allow a force planner to build a force by determining when various units would be needed for the most likely (or demanding) scenarios. Building the structure would then simply be a matter of determining which component could meet the required date.

## PURPOSE AND APPROACH

We develop a range of time estimates for post-mobilization training of Army Reserve Component combat brigades. RC brigades are particularly important in Army planning because some AC divisions are structured in peacetime to contain just two active brigades. These divisions must be supplemented in wartime by one RC "round-out" brigade.<sup>1</sup> Such divisions might be needed to reinforce U.S. forces fairly early in a conflict. Thus, the time it takes to train and prepare an RC combat brigade can be crucial to force structure planning and to the success of military operations in a major contingency.

Our estimates of this time depend on assumptions about several key factors. These factors include:

- The length of time after the combat unit's Annual Training that mobilization occurs;
- Whether the unit's equipment is mission-ready;
- The level of proficiency sustained by crews and platoons on tasks such as tank and Bradley gunnery and maneuver exercises during pre-mobilization training; and
- The amount of training required at company level and above, particularly for the more complex functions associated with op-

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<sup>1</sup>A few other RC brigades are planned as "round-up" units. A round-up brigade is a unit that would add to the strength of an AC division that already contains three fully active brigades. A round-out unit, in contrast, provides the third brigade for an AC division that has only two active brigades in peacetime. Both types of brigades have about 4,000 personnel.

erations as a task force, to achieve proficiency (to standard) in a minimum set of tasks required for deployment.

This report draws data from the three Army National Guard (ARNG) round-out brigades activated for the Persian Gulf War; a Department of the Army Inspector General (DAIG) report analyzing that same activity; routine preparation undergone by AC units as they prepare for the National Training Center (NTC); and numerous interviews with active duty and reserve personnel during the 1992 summer Annual Training cycle. By identifying the preparatory steps common to most training programs and determining how long each takes, we can estimate unit preparation times.

## **HOW THIS REPORT IS ORGANIZED**

The remainder of the report is organized into four sections. Section 2 explains why RC units require post-mobilization training and describes the various sources from which we drew our data. Section 3 identifies the minimum set of skills a unit needs to master before deployment, and Section 4 estimates preparation times. A final section contains conclusions and suggests some changes that might improve the post-mobilization training process.

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## NEED FOR POST-MOBILIZATION TRAINING

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This section first examines both RC and AC training programs and discusses why post-mobilization training is needed. Both AC and RC units will execute some training immediately before deploying to a combat theater. The amount the AC units will undertake will depend primarily on the time available. The goal of AC units is to sustain peacetime readiness so that they can deploy with a minimum of additional training. RC units, however, tend to require more because of the limited number of training days they have available in peacetime.

After reviewing the need for post-mobilization training, this section then describes the sources we draw on to determine which tasks should be addressed in the post-mobilization period.

### RC AND AC TRAINING PROGRAMS

#### RC Units Have Complex Tasks but Minimal Time Available

RC brigades are complex entities that contain a number of subordinate echelons. Much of the complexity is contributed by the maneuver elements (armor and mechanized infantry).<sup>1</sup> Armor units are based on formations of M1 tanks (each with a four-person crew);

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<sup>1</sup>The typical RC mechanized infantry brigade has five subordinate battalions: two mechanized infantry battalions and one each of armor, artillery, and forward support. Each battalion contains four to six companies (typically between 60 and 200 personnel each, although they vary considerably by type of unit). The brigade also contains specialized companies for headquarters, signal, engineers, and armored cavalry.

mechanized infantry units are based on formations of Bradley Fighting Vehicles (each with a three-person crew and a squad of infantrymen who ride inside). Each crew must be trained in its gunnery and maneuver functions. In addition, the higher-echelon units (platoons, companies, battalions, and brigades) require more complex training in such tasks as coordinating fire, movement, synchronization of activities, and integration with other functions such as artillery, maintenance, engineering, and other support.<sup>2</sup>

The typical RC unit has 39 days a year available for collective training to master these functions. The training time is divided into two categories, called Inactive Duty Training (IDT) and Annual Training (AT). An RC combat unit is allotted an additional three days to allow crews to use the Conduct of Fire Trainer (COFT), a simulator for tank and Bradley Fighting Vehicle crews.<sup>3</sup> IDT normally occurs on weekends, with units training one weekend per month for an annual total of 24 days. The AT period usually occurs in the summer and consists of one 15-day period during which RC units practice their collective skills. AT generally takes place at a large military installation. During these 39 days, RC units are expected to accomplish all the individual, crew, and collective training required by their wartime mission, including the maintenance skills to integrate any new arrivals into the unit and to accomplish all the administrative requirements. These tasks are too many and too complex to master in the time available, and many reservists—typically the leadership—devote far more than the nominal 39 days a year to the task.<sup>4</sup>

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<sup>2</sup>Generally speaking, the greatest training challenges are found in the maneuver units, which must master skills associated with shooting, moving, and coordinating actions over considerable areas under severe time pressure. The Operation Desert Shield/Storm (ODS) experience, however, showed particular training problems also in maintenance functions, both operator/crew maintenance and work performed by specialized elements within the forward support battalion (DAIG, 1991).

<sup>3</sup>The COFT contains positions for the tank or Bradley commander and the gunner, with realistic controls and display screens that simulate the view of opposing vehicles and terrain. It provides an elaborate set of targets and situations representing varying levels of difficulty, including stationary and moving targets, firing while one's own vehicle is stationary or moving, firing when certain systems are degraded by malfunctions, and so forth.

<sup>4</sup>Previous estimates indicate that the average RC unit officer is paid for 73 days per year and the average noncommissioned officer is paid for 59 days. Much of the additional time is spent on training management and other administrative duties. See Deputy Commandant, U.S. Army Command and General Staff College (1992).

### AC Units Have Extensive Training Programs

AC units have considerably more time available, which allows them to execute repetitive and integrated training. They have approximately 240 days per year available, or more than five times more than their reserve counterparts.<sup>5</sup>

The AC training program is progressive, sequential, and repetitive; it is aimed at sustaining training readiness throughout the year. It is a continuous, never-ending process, although training strategies do vary across divisions.<sup>6</sup> For example, AC individual and maneuver field training events, consisting of squad, section, and platoon drills, are spread throughout the year. Platoon situational training exercises (STX) and field training exercises (FTX) are executed four to eight times per year, including at least one with an external evaluation. Company teams conduct two to three FTXs or STXs each year with at least one external evaluation. Most battalions participate in a company team or partial battalion combined arms live fire exercise (CALFEX), usually with an external evaluation. If maneuver space permits, most battalions conduct a battalion task force FTX. And finally, each brigade goes to the NTC with two of its battalions every 12 to 14 months.

Each echelon participates in all field training exercises of echelons higher than itself, thus providing an opportunity to hone and sustain skills throughout the year. In addition to field training there are numerous other training events, including tactical exercises without troops, map exercises, Tactical Operations Center exercises, staff exercises, command post exercises, fire command exercises, logistics exercises, deployment exercises, and warfighter exercises.<sup>7</sup>

The AC readiness sustainment goals for gunnery are similar. Most divisions require four to six hours of COFT time per month and more

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<sup>5</sup>U.S. Army Training Board (1987), and U.S. Army Initiatives Group (1992).

<sup>6</sup>U.S. Army Combined Arms Center (1991). Also see the AC training plans in the appendix.

<sup>7</sup>Fire command exercises are drills that require a unit's commanders and staff to execute planning and coordination of fires, including those provided by such elements as artillery and aviation. Warfighter exercises are special computer-driven command post exercises conducted at division and corps levels by the Battle Command Training Program at Fort Leavenworth, Kansas. See Kahan et al. (1989).

for new crews. Crew gunnery skills tests (TGST for tanks or BGST for Bradleys) and crew proficiency courses (TCPC or BCPC) are executed two to four times per year. Before moving into a full gunnery cycle, crews must usually pass "gates" (minimum proficiency levels) represented by performance in the COFT or the above courses and tests.

In most divisions, crews fire a full gunnery cycle, including tank or Bradley Tables IV through VIII, twice a year. These tables represent increasingly difficult or complex sets of targets and firing conditions. Table VIII, for example, which is the final event that qualifies a crew, includes 10 engagements against single and multiple stationary and moving targets, some during daytime and some at night.<sup>8</sup>

After crews are qualified, the firing sequence moves up to platoons (four tanks or four Bradley Fighting Vehicles), which fire Tables XI through XII. Table XII, which is the culminating event in this process, requires coordinated platoon fire against multiple targets during day and night. In the AC, these tables are fired once or twice each year depending on the division.

### **Not All Available RC Time Can Be Used for Training**

Clearly, RC units cannot be tasked to achieve in 39 or even 42 days what AC units accomplish in 240 days. Unfortunately, not even those days are fully available for training.<sup>9</sup> For example, of the 15 days typically allotted for the Annual Training (AT) period, travel to and from the collective training site consumes two days; drawing equipment and cleaning, repairing, and turning in equipment takes an additional two to three days, leaving only 10 to 11 days for training. Like AT, the amount of effective training time for the federal mission in IDT is somewhat less than it appears, because it includes special unit formations, religious services, state mission training, administrative tasks, and travel time between armories and training areas if the unit is going to engage in field training.<sup>10</sup> The distance from armories to major training areas where their tactical vehicles

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<sup>8</sup>For details of gunnery tables, see U.S. Army (1986a, 1986b).

<sup>9</sup>U.S. Army Training Board (1987).

<sup>10</sup>National Guard units belong to the states in peacetime and train for a variety of state missions such as riot control and other emergency situations.

are usually kept is a major constraint to making best use of IDT periods. On average, a unit must travel 150 miles to these areas, but some travel as far as 300 miles.<sup>11</sup>

It is also difficult for maneuver units to use their allotted time in the COFT to train vehicle commanders and gunners. The COFT is supposed to provide six additional four-hour training periods for commander-gunner pairs. Currently, however, a maneuver company has access to a mobile COFT less than one month per quarter at its armory; moreover, a vehicle commander and his gunner are often not available at the same time to take full advantage of this additional training.

Schooling is another activity that effectively reduces unit training time. Schooling is conducted during the AT period and, in some cases, during IDT periods as well. Schooling requirements include MOS qualification (MOSQ) training for entry-level personnel or for more senior personnel who are changing jobs. Attendance at professional schools is also required for noncommissioned officer (NCO) and officer promotions. School attendance detracts substantially from tactical vehicle crew integrity, which makes sustainment of crew skills more difficult.

School requirements have a less adverse effect on AC training than on RC training. New privates entering an AC unit have already completed basic training and MOSQ training. Professional schools are frequently attended between assignments, which causes less turbulence within the unit. Although turnover also affects the AC, personnel reporting to AC units usually have the required schooling for the job, and the AC has more than five times the training days available per year to provide additional training and to integrate new personnel into the unit.<sup>12</sup>

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<sup>11</sup>U.S. Army Training Board (1987); Johnson and Rozman (1992), pp. 36–46.

<sup>12</sup>Note, however, that the AC tries to stabilize personnel and hold turnover to a minimum during that period just before an NTC rotation. For a further discussion comparing the peacetime training of AC combat units that deployed during ODS with ARNG units that were mobilized for training, see U.S. General Accounting Office (1992).

## THE FOCUS OF POST-MOBILIZATION TRAINING

### Reaction to the Persian Gulf War Call-Up

During Operation Desert Shield, three ARNG combat brigades were mobilized and trained although they did not deploy. The brigades were round-out brigades of active divisions. They were the 48th Infantry Brigade, which rounded out the 24th Infantry Division, the 155th Armor Brigade, which rounded out the 1st Cavalry Division, and the 256th Infantry Brigade, which filled out the 5th Infantry Division.<sup>13</sup> The DAIG carried out a special assessment of the brigades' mobilization,<sup>14</sup> concluding that the training time available in peacetime was inadequate to train and sustain the full range of tasks required for wartime deployment. The DAIG report recommended developing a new, more integrated strategy that would make pre- and post-mobilization training programs more complementary.

The DAIG recommended the following key training changes:

- Increased peacetime training emphasis on individual skills;
- Peacetime focus on gunnery skills through qualification on Table VIII (crew level), and on maneuver tasks through the platoon level; and
- Leadership and command and staff group skills to be developed in parallel with lower-level collective skills.

This peacetime emphasis aims to provide a baseline level of competence in these tasks so that the complementary training during the post-mobilization period can concentrate on higher-echelon training at company team, battalion task force, and brigade levels.

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<sup>13</sup>Currently, the 48th and 155th round up rather than round out the 24th and the 1st Cavalry, respectively. After completion of post-mobilization training, round-up brigades become available to the divisions as 4th brigades. The 256th currently rounds out the 2nd Armor Division (formerly the 5th Infantry Division). Divisions with round-out brigades have only two AC brigades rather than the usual three.

<sup>14</sup>DAIG (1991).



### **Bold Shift: Executing the Department of the Army Training Strategy**

The Department of the Army followed up on the DAIG's recommendations with the Round-Out Brigade Task Force, which recommended similar changes in training focus. As a result, the task force's training plan is being implemented by Forces Command under a program called Bold Shift.<sup>15</sup>

To set the stage for the next section's development of estimates for post-mobilization activities and training time, one needs to understand the Bold Shift peacetime training objectives, with their complementary higher-echelon collective training goals for the post-mobilization period. The Bold Shift plan anticipates that post-mobilization training of ARNG brigades will take them from their peacetime level to a minimum acceptable wartime level of capability, based in part on the receiving CINC's requirements and an assessment of the Mission, Enemy, Terrain, Troops and Time Available (METT-T). That is, elements of the post-mobilization training will focus on their Mission Essential Task List (METL). This includes only a specific subset of wartime tasks, not all possible tasks a unit might be called upon to execute if METT-T were unknown. The measure of effectiveness of post-mobilization training is a task trained to standard, not the amount of time spent training the task. But it is important to recognize that some tasks will be trained to standard only once. This level of training will not yield the same results as the repetitive, sequential training cycle implemented by the AC, which trains at all echelons to sustain the standard. It is also clear that the range of post-mobilization training activities and the time required to execute them will be determined by a unit's pre-mobilization training status. Thus, as we consider the anticipated sequence of training activities in the next section, we must provide for the possibility that some pre-mobilization training goals may not be met and that some remedial activity could therefore be required.

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<sup>15</sup>Bold Shift Task Force (1991). Bold Shift encompasses a wider range of initiatives than just the change in training focus, but they are beyond the scope of the discussion here.

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## POST-MOBILIZATION TRAINING ACTIVITIES

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### SOURCES OF INFORMATION

This section enumerates the set of activities that may have to be accomplished by RC brigades during the post-mobilization period to prepare for deployment. We drew this set from four categories of sources:

- Training plans for the 48th Infantry Brigade, 155th Armor Brigade, and 256th Infantry Brigade during their mobilization for Operation Desert Shield in 1990-1991. The plans include revisions made during the execution of ODS training.<sup>1</sup> (See the appendix.)
- The DAIG assessment of the National Guard brigades' mobilization.<sup>2</sup>
- The Combined Arms Training Strategy, a standard program developed by the U.S. Army Training and Doctrine Command to describe appropriate field unit training activities.<sup>3</sup>
- Active Component training plans for 1991-1993 from the 1st Cavalry Division, 4th Infantry Division (Mech), 24th Infantry Division (Mech), and 5th Infantry Division (Mech).<sup>4,5</sup>

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<sup>1</sup>NTC Operations Group (1990).

<sup>2</sup>DAIG (1991).

<sup>3</sup>U.S. Army Combined Arms Center (1991).

<sup>4</sup>4th Infantry Division (Mech) (1991).

<sup>5</sup>5th Infantry Division (Mech) (1991).

Each source describes important tasks that often need to be trained for as a unit prepares for a demanding exercise or combat environment.

## MAJOR ASSUMPTIONS

In our analysis of the tasks and times, we have made several assumptions about the RC units that would be involved in such a train-up program. The major assumptions are:

- Brigades are fully resourced. Their Authorized Level of Organization (ALO) is 1; e.g., they receive 100 percent of their required personnel and equipment.
- 90 percent or more of the positions are filled with duty MOS qualified (DMOSQ) personnel. Thus, the number of filler personnel and the amount of DMOSQ training will be at manageable levels.
- Equipment levels are at ALO 1 and fully compatible with the wartime gaining organization. For example, the reserve units would have the same type of armored personnel carriers (e.g., Bradleys rather than M113s), and the same type of communication equipment as their active division.<sup>6</sup>

We have divided the activities contained in our various sources into four major groups: mobilization activities; individual, crew, and platoon training; training while task organized (which includes company team through brigade-level training)<sup>7</sup>; and training recovery, maintenance, and preparation to load equipment for shipment to the port. In addition to the mobilization activities, we also examine

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<sup>6</sup>Steps are under way to achieve these goals. For example, the National Guard program called Project Standard Bearer aims to improve RC unit readiness by fully manning units with near-100 percent MOS qualified personnel, eliminating nondeployable personnel, ensuring that unit equipment levels are at ALO 1 and compatible with the AC, and conducting periodic readiness assessments (U.S. Army National Guard Bureau, 1992).

<sup>7</sup>Task organizing involves cross-attaching heterogeneous types of units. For example, a company team may be made up of tank and infantry elements drawn from two different companies, each of which contains only its own type of formation (armor or infantry).

the gunnery and field training of the maneuver units. Data from ODS suggest that this training is the most complex and time consuming, and that the training of combat support (e.g., artillery) and combat service support units (e.g., maintenance and medical) can be accomplished in conjunction with or in parallel with the maneuver unit training.

We also address specialized training for commanders and battle staffs, which we believe can generally be executed in parallel with other training. This training focuses on skills required for effective synchronization of the battlefield operating systems, tactical command and control, and operations as part of a larger force. The commanders and battle staffs of the brigade and the battalions would oversee the mobilization activities. During crew and platoon training, with adequate support by the AC trainers, the brigade leaders could undergo command and staff training in parallel. During training while task organized, the leaders would provide command and control for the task organizations and would execute additional command and staff exercises as time permits (see Table 1).

We made an important assumption in developing the post-mobilization training estimates: We assume that the commanders and staffs are prepared well enough in peacetime, as suggested in the Bold Shift goals, to complete their training during the post-mobilization period. The Army National Guard is currently developing an enhanced brigade command and staff training program to help accomplish these goals.<sup>8</sup> This plan, as currently conceived, could add as much as 15 to 20 more training days per year for round-out and round-up brigade commanders, battalion commanders, and key members of their staffs.

The probable success of such enhanced commander and staff training has been the subject of a continuing debate. But as Goldich suggests, a feasible strategy to hedge against such a problem may be to:

... treat Guard officers—like active Army officers—as individuals, rather than a class. If they prove incapable of performing their jobs, or show an inadequate post-mobilization learning curve, then

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<sup>8</sup>U.S. Army National Guard (1992).

## 14 Post-Mobilization Training of Army Reserve Component Combat Units

**Table 1**  
**Brigade Post-Mobilization Preparation**

Maneuver Units	Commanders and Battle Staffs
<b>Mobilization Activities</b> <ol style="list-style-type: none"> <li>1. Mobilize, move from home station to mobilization station</li> <li>2. Move from mobilization station to collective training site</li> <li>3. Prepare for overseas movement and individual training</li> </ol>	
<b>Crew/Platoon Training</b> <ol style="list-style-type: none"> <li>4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test</li> <li>5. Gunnery Tables IV-VIII</li> <li>6. Gunnery Tables XI-XII</li> <li>7. Squad drills, platoon lanes, STXs</li> </ol>	Operations order drills TOC exercises TOC field operations CPXs, BBS
<b>Training While Task Organized</b> <ol style="list-style-type: none"> <li>8. Company team lanes and STXs</li> <li>9. Company/battalion combined arms live fire exercise (CALFEX)</li> <li>10. Battalion task force operations</li> <li>11. Brigade and battalion task force operations (could be at NTC)</li> </ol>	Provide command and control for units plus additional exercises as time permits
<b>Training Recovery and Preparation to Move</b> <ol style="list-style-type: none"> <li>12. Maintenance, recovery, and preparation for loading</li> </ol>	

replace them as is done in the active Army, which, many Guardsmen correctly note, relieves officers for cause as necessary.<sup>9</sup>

### POST-MOBILIZATION ACTIVITIES

We now discuss these post-mobilization activities in more detail. As mentioned, we organize the activities into the above four major

<sup>9</sup>Goldich (1991).

groups, further broken out into a total of 12 steps depicted in Table 1. The first group, **Mobilization Activities**, covers such events as assembling at home station, moving to the mobilization station, moving to the collective training site, and preparing to move overseas.

The requirement to move to a collective training site is based on current basing and brigade relationships with their active divisions. At present, only the 48th Brigade would mobilize at the home station of its active division; all five other round-out or round-up brigades must mobilize at a post that is away from their division headquarters. We assume that some or all of the post-mobilization training for the round-out brigades would have to be accomplished at the active division's home station. The alternative would be to have the active division pack up personnel and equipment and go to the mobilization station to provide training support—during a time it was also getting ready for deployment. For this analysis, we include the movement from the mobilization station to the collective training site. We recognize, however, that under some reorganization and re-stationing plans, this move might not be needed. If, at some future point, mobilization occurs at the collective training site with full training support, this move could be eliminated.

During preparation for overseas movement, the unit will correct individual problems, such as missing wills or family care plans, medical and dental requirements, lack of qualification for duty positions, and cross-leveling to fill any vacancies. Also during this period, some individual training can be accomplished, e.g., chemical training or personal weapon qualification.

During the first step in the second major category, **Crew/Platoon Training**, the unit finishes any equipment-related work needed before gunnery and maneuver training. This may include periodic testing of fire control equipment, bringing equipment up to full operational capability, and correcting any maintenance deficiencies. (Such problems were common during the ODS train-up and reappeared during some of the summer 1992 Annual Training periods for the brigades.) Since some crews will be new or will have a new commander-gunner combination and some will have "rusty" gunnery skills, they may need practice on the tank and Bradley Conduct of Fire Trainers. Some crews may also have to pass various "gates" before undertaking gunnery, such as checking the vehicle and the

crew's knowledge of its features and passing the tank or Bradley gunnery skills test (T/BGST), or the tank or Bradley crew proficiency course (T/BCPC).

Tank and Bradley crews then proceed through the sequence of gunnery tables (numbers IV through VIII for crews and XI to XII for platoons). The tables required during post-mobilization training would depend on the unit's proficiency at the time of mobilization. This proficiency would in turn depend on when crew members last qualified and how well they have been able to sustain their skills. Under the Bold Shift training strategy, platoons will be firing Tables XI and XII for the first time during post-mobilization training.

In addition to gunnery, units practice squad and platoon drills, and execute squad, section, and platoon STXs or "lanes" (in which units attempt operations in a specially set-up field environment, under the supervision of observer-controllers and usually against a skilled opposing force). Again, the extent and content of the training required at this level will depend on what has been achieved during peacetime pre-mobilization training. Drills might include such tasks as hasty dismount, react to contact, breach a mined wire obstacle, or engage targets from a hasty battle position. During ODS, the platoon lanes focused primarily on a subset of platoon attack and defend tasks.

The third category of activities, **Training While Task Organized**, moves the unit up to company team, battalion task force, and brigade-level operations. At these levels, armor and mechanized infantry units will be integrated into formations with heterogeneous elements, a mode of operations with which many soldiers have had little or no experience unless the Bold Shift pre-mobilization goals are exceeded. These exercises will focus on basic attack and defend missions plus additional specialty lanes and exercises that deal with the METT-T of the theater of operations. For example, during ODS, company-level specialty lanes included company breach, company trench clearing, advance guard, assault, and counter-reconnaissance. Not all companies trained in all of these lanes, so there was some specialization across companies.

A combined arms live fire exercise (CALFEX) raises the level of collective training. It would involve multiple company teams, artillery, and other members of the combined arms team with a battalion task

force headquarters in charge. During battalion task force and brigade operations, the unit would face offensive and defensive challenges similar to those in the simulated battles at NTC, against an opposing force and reviewed by experienced observer-controllers at the end of each exercise. Again, the content of the task force and brigade operations would reflect the METL and METT-T conditions in the theater of operations.

During ODS, both the 48th and the 155th Brigades executed battalion task force exercises (step 10) before starting their brigade-level NTC rotation (step 11). In the post-mobilization model we develop here, we are not suggesting that an NTC rotation be required. We suggest only that training similar to that provided by the NTC be included. This training could be executed at the NTC. If time permitted, that would, of course, be preferred; it is widely accepted that the NTC enjoys an opposing force with superlative skills and training conditions unmatched anywhere.<sup>10</sup> However, training at the NTC comes with a substantial additional time penalty to travel, draw equipment, turn in equipment, and return. The DAIG estimates this penalty to be between 17 and 26 days.<sup>11</sup> To avoid this penalty, we omit from our schedule the movement to and from the NTC and the associated equipment turnaround times.<sup>12</sup> The NTC would also be a potential bottleneck if several round-out or round-up brigades were needed simultaneously.

The final stage, **Training Recovery and Preparation for Movement**, occurs after completion of field training but before deployment. The unit must conduct a number of maintenance activities that will now be due after a period of intensive equipment use and must prepare to load its equipment for overseas shipment.

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<sup>10</sup>Only a few installations have sufficient space to execute multiple task force, force on force, operations. According to U.S. Army Forces Command, these include Fort Irwin, California (NTC); Fort Hood, Texas; Fort Carson, Colorado; Fort Bliss, Texas; and Yakima Training Center, Washington.

<sup>11</sup>DAIG (1991).

<sup>12</sup>The time penalty for movement to and from the NTC could be reduced significantly if the NTC had a full brigade set of equipment and units were not required to rail ship their rolling stock (trucks, etc.) as they do now. More time could be saved if additional maintenance personnel were available at the NTC to draw equipment before the rotation, and to fix and turn in equipment when the rotation was complete. Under these conditions, units could fly in and fly out.



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18 Post-Mobilization Training of Army Reserve Component Combat Units

Recognizing that the goal is to train the tasks to standard, the next section estimates the time required for each of the activities identified, given varying levels of competence at the time of mobilization.

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## DEVELOPING TIME ESTIMATES

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In the previous section, we identified the four major categories of post-mobilization activities and discussed the 12 specific activities that fall into the four categories. In this section, we estimate how long each activity takes. To make these estimates, we relied on sources cited earlier. Specifically, we drew estimates from the peacetime train-up programs of four divisions, training programs followed during ODS by all three round-out brigades that were called up, and finally the ODS train-up history and recommendations of the DAIG, whose office developed new estimates of the post-mobilization training times that would be required if specified improvements were made in RC peacetime training. As discussed above, these improvements are currently being implemented as part of the Bold Shift initiatives. In addition to these reviews, we consulted with the Department of the Army's Directorate of Training and its Round-Out Brigade Task Force, which followed up on the DAIG recommendations. Finally, we monitored the early stages of implementation of the Bold Shift program and observed training and evaluations of a wide range of units during their Annual Training.

### ACTIVE DIVISION PEACETIME TRAINING PLANS

We first examine the peacetime training plans of Active Component units. The plans varied in length and some activities appeared more than once in a given plan. For example, an AC brigade typically executes a full gunnery cycle twice a year. In those cases where an activity was scheduled more than once, an average was computed using the elapsed time of a single event. In the case of gunnery, a typical

AC brigade took 21 days to execute a full Table IV or V through Table VIII gunnery cycle. The cumulative average for each activity is shown in Table 2 for those activities that the AC schedules as blocks and for which we have data. For the units examined, the brigade and battalion task force maneuver operations were accomplished at the NTC. The time shown reflects only the 14-day rotation and does not include the time required to move, draw equipment, maintain and return equipment, and return to home station.

The averages for each individual AC unit are shown in Table A.1 in the appendix. Our goal in using these data was to estimate the length of time blocks allocated by the AC to accomplish each activity, not to estimate post-alert training requirements for the AC unit before de-

**Table 2**  
**Average Days in AC Peacetime Plans for Each Activity**

Maneuver Unit Activity	AC Plans	Comments
<b>Mobilization Activities</b>		
1. Mobilize, move from home station to mobilization station		Not executed by AC in peacetime
2. Move from mobilization station to collective training site		
3. Prepare for overseas movement and individual training		
<b>Crew/Platoon Training</b>		
4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test	7	
5. Gunnery Tables IV-VIII	21	
6. Gunnery Tables XI-XII	5	
7. Squad drills, platoon lanes, STXs	11	
<b>Training While Task Organized</b>		
8. Company team lanes and STXs	15	
9. Company/battalion combined arms live fire exercise (CALFEX)	7	
10. Battalion task force operations	6	
11. Brigade and battalion task force operations (at NTC)	14	Does not include move to NTC
<b>Training Recovery and Preparation to Move</b>		
12. Maintenance, recovery, and preparation for loading		

ployment. As discussed above, the AC training program is a continuous process, and the content of post-alert training will depend on where they are in the process and the time available before deployment.

### ROUND-OUT BRIGADE TRAINING PROGRAM

We next examine information about the train-up of the three ARNG brigades during the ODS mobilization, including the three round-out battalions that trained with them. These data come from the DAIG report; detailed post-mobilization training schedules, including modifications that occurred after training began; after-action reviews; and interviews with division and brigade commanders and staffs as well as officials at the NTC.<sup>1</sup>

Some brigades did not participate in all activities and, as a result, some "averages" may represent only one brigade's experience. For example, the 256th was the only brigade to shoot a Table XII for which schedule data were available.<sup>2</sup> Only the 155th Brigade shot a CALFEX. For both the 155th and the 256th, these missing activities were on the original schedule but were canceled because of a lack of time. The training strategy at the NTC was somewhat different for the 48th; neither Table XII nor CALFEX was scheduled but similar live fire exercises were executed. The detailed schedules for each brigade are in Tables A.2 to A.4 in the appendix.

Some training tasks were not completed to standard in the time originally allocated for that activity, because early in the ODS mobilization the process was driven by time, not by completion to standard. For example, the 48th Brigade had only 10 days scheduled for gunnery at Fort Stewart and Fort Benning before it had to deploy to the NTC. In that time, only 13 percent of the tank crews and 43 percent of the Bradley crews were qualified.<sup>3</sup> The 155th had only 14

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<sup>1</sup>NTC Operations Group (1990), 5th Infantry Division (Mech) (1991), 4th Infantry Division (Mech) (1991).

<sup>2</sup>The Bradleys in the 155th Brigade did shoot Table XII, but data on the time scheduled were unavailable. The armor battalions associated with the 155th did not shoot Table XII because of a lack of time.

<sup>3</sup>The 48th did go on to qualify more crews at the NTC in parallel with other activities.

days to complete both platoon and company team lane training, and over 40 percent of the platoons and company teams received unsatisfactory ratings after multiple trials. Because these tasks were not completed to standard, they were not included in the ODS averages.

In other cases, some crews or units did not complete tasks to standard but continued training in parallel with subsequent activities. For example, all three brigades continued parallel gunnery after the allotted time had elapsed. Our average time estimates for a particular activity were based on the elapsed time for that activity, as executed in the final schedule. They exclude time spent in parallel, since those periods are covered under other activities. The time estimates also include time allocated for maintenance and down time scheduled as part of a particular activity. They also include time to prepare and move to the next activity. Maintenance included operator and organizational maintenance, but no time was provided for scheduled maintenance services. The averages derived from the ODS experience are shown in Table 3.

Table 3 shows the average number of days spent by ARNG units in each activity during the ODS mobilization train-up. Activity 11, brigade and battalion task force operations, was accomplished at the NTC. The time shown is just the 12-day rotation and does not include the time required to move, draw equipment, or maintain and return equipment.

### ESTIMATES BY THE INSPECTOR GENERAL

After the conclusion of ODS, assessments were made of the post-mobilization training of the three brigades mobilized during ODS, and members of the DAIG's office analyzed training requirements for the round-out brigades and considered how their post-mobilization period might best be compressed. As discussed above, the DAIG made a number of recommendations that, if implemented, could potentially shorten the post-mobilization training program. We briefly review them here.

First, they suggested new policies to rectify long-standing shortfalls in individual MOS training and NCO professional education; staff and leader training times were also to be increased. Second, a peace-

**Table 3**  
**Average Days in AC Peacetime Plans and in ARNG ODS Experience**  
**for Each Activity**

Maneuver Unit Activity	AC Plans	ARNG ODS	Comments
<b>Mobilization Activities</b>			
1. Mobilize, move from home station to mobilization station		4	
2. Move from mobilization station to collective training site		7	
3. Prepare for overseas movement and individual training		3	
<b>Crew/Platoon Training</b>			
4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test	7	10	Gunnery completed in parallel with other activities
5. Gunnery Tables IV-VIII	21	29	
6. Gunnery Tables XI-XII	5	6	
7. Squad drills, platoon lanes, STXs	11	11	
<b>Training While Task Organized</b>			
8. Company team lanes and STXs	15	22	Does not include move to NTC
9. Company/battalion combined arms live fire exercise (CALFEX)	7	11	
10. Battalion task force operations	6	7	
11. Brigade and battalion task force operations (at NTC)	14	12	
<b>Training Recovery and Preparation to Move</b>			
12. Maintenance, recovery, and preparation for loading		9	

time training program was recommended that would, at most, bring crews through qualification on Table VIII and achieve platoon-level proficiency on maneuver and STX-like tasks. Not only must these skills be mastered during peacetime but proficiency must be sustained until the unit is mobilized. The above two recommendations are being implemented as part of the Bold Shift initiative. Third, the DAIG assumed that collective training would be accomplished at the mobilization station, obviating some of the moves that occurred during ODS. The DAIG post-mobilization training plan is shown in Table 4.

**Table 4**  
**Average Days in AC Plans, ARNG ODS Experience, and DAIG**  
**Recommendation**

Maneuver Unit Activity	AC Plans	ARNG ODS	DAIG		Comments
			Opt.	Pessm.	
<b>Mobilization Activities</b>					
1. Mobilize, move from home station to mobilization station		4	3	5	Train at mobilization site Includes maintenance
2. Move from mobilization station to collective training site		7			
3. Prepare for overseas movement and individual training		3	4	7	
<b>Crew/Platoon Training</b>					
4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test	7	10			Sustain gunnery
5. Gunnery Tables IV-VIII	21	29 <sup>a</sup>	6	8	Table VIII only
6. Gunnery Tables XI-XII	5	6	4	6	
7. Squad drills, platoon lanes, STXs	11	11			Sustain platoons
<b>Training While Task Organized</b>					
8. Company team lanes and STXs	15	22	8	10	Brigade and task force combined: NTC optional
9. Company/battalion combined arms live fire exercise (CALFEX)	7	11	5	5	
10. Battalion task force operations	6	7			
11. Brigade and battalion task force operations (could be at NTC)	14	12	13	17	
<b>Training Recovery and Preparation to Move</b>					
12. Maintenance, recovery, and preparation for loading		9	7	14	
<b>Total days</b>			<b>50</b>	<b>72</b>	

<sup>a</sup>Gunnery completed in parallel with other activities.

Working on the assumption that these recommendations would be implemented and successful, the DAIG post-mobilization training program dispenses with several steps in the basic process and shortens the time for others. Thus, the DAIG program eliminates the move from the mobilization station to the collective training site in step 2; eliminates any maintenance after drawing equipment and deletes the pre-gunnersy drills and tests in step 4; requires only a Table VIII qualification with no pre-qualification screen or gate; and eliminates the squad and platoon maneuver exercises in step 7. In steps 8 and 9, for company team lanes and CALFEX combined, the DAIG suggested a range of 13 to 15 days, which is substantially less than the 22-day average for the AC in peacetime and the 33-day experience in ODS. The DAIG plan also combines battalion and brigade operations training in steps 10 and 11. This reduces the scheduled time when compared to the ODS experience (from 19 to 13 or 17 days, depending on whether the DAIG "optimistic" or "pessimistic" plan is considered). The DAIG maneuver training plan also assumed that the training would focus on a minimum subset of attack and defend tasks trained to standard with no specialty lanes.<sup>4</sup>

By making such assumptions, which depart substantially from Active Component and ODS historical experience, the DAIG plan projects a total training period of 50 to 72 days, exclusive of any NTC rotation. The DAIG also made optional a subsequent NTC 12-day training rotation similar to ODS. It would add approximately 29 to 38 days (optimistic and pessimistic). The time to go to the NTC includes 13 to 20 days for the round trip to the NTC with wheeled vehicles and other equipment; the remaining time includes 16 to 18 days to draw equipment, execute the 12-day rotation, and turn in the equipment.

These times appear very optimistic compared with what has been achieved in the past. Our interviews with field units and trainers and our own observations during recent Annual Training periods lead us to believe that it would be unrealistic to plan as though the DAIG's assumptions will be realized in the near future. As we will discuss below, our own estimates include some of the activities that the

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<sup>4</sup>Another problem may be that DAIG has not allowed sufficient time to move and prepare for the next training event or time to recover from an event and perform maintenance.



DAIG by-passed, because both the AC and RC have repeatedly found them necessary as they went through their own train-up processes.

### ESTIMATING POST-MOBILIZATION PREPARATION TIME

We made several key assumptions in developing our initial estimates of post-mobilization train-up time. We assume, for example, that AC or other personnel will be available to "cover down" on the RC units to provide training support, as was done during the ODS mobilization.<sup>5</sup> In this report, we will not address the preparation time requirement under conditions where AC training support is lacking.<sup>6</sup> We also assume that gunnery and collective training will be accomplished at one site. As discussed above, given the current relationship between the ARNG brigades and their AC divisions, the round-out brigades (116th Cavalry, 218th Infantry, and 256th Infantry) will, at some point, have to travel from their mobilization station where their equipment is kept for peacetime training to the AC division's home station (Fort Carson, Fort Riley, and Fort Hood, respectively).

For the round-up brigades, the situation could be somewhat different. In the case of the 48th Infantry Brigade, its mobilization station is Fort Stewart (as is the 218th's). Although the 48th could train at Fort Stewart, its mobilization activities could conflict with those of the 218th, and the 48th probably could not start training until after the 24th division, based at Fort Stewart, had deployed.<sup>7</sup> The 155th Armor Brigade would probably go to Fort Hood or Fort Polk because the gunnery ranges at Camp Shelby, its mobilization station, are inadequate for the full range of live fire requirements. The 81st Infantry, which rounds up the 2nd Infantry Division in Korea, could conduct its collective training at Yakima Training Center if training

<sup>5</sup>In RC training, "cover down" refers to the assistance provided by an outside set of experts and support personnel. These personnel manage ranges, assist in planning gunnery programs and field exercises, observe and critique training events, explain procedures, counsel trainees, and generally provide support and evaluation capabilities that the RC unit would not have by itself. During ODS and Annual Training in 1992, the "cover down" was as high as one AC person for every two RC.

<sup>6</sup>This might occur, for example, if the parent division was deployed in a crisis before its round-out brigade could be trained up.

<sup>7</sup>Both the 48th and 218th would have difficulty completing brigade-level multiple task force training at Fort Stewart and Fort Riley because of space limitations.

support could be made available. Otherwise, it could be a candidate to go to the NTC for all of its training. In this report, we will assume that units have to travel from their mobilization stations to their collective training sites as they did during ODS and that there is sufficient gunnery and maneuver space to support the required training.

The brigade and battalion task force training activity (activity 11) could be accomplished at the collective training site or at the NTC; an NTC rotation is not assumed to be a requirement although it would be preferred if time permitted. If an NTC rotation is chosen, the time developed here does not include time for movement to and from the NTC or the time to draw and return equipment. These activities would add between 17 and 26 days unless additional resources are provided at the NTC so that units could fly in and fly out and not have to bring equipment with them.

We also assume that some parallel training will take place: Most required individual training will occur while other major training activities are under way or while equipment is in-transit overseas; dismounted squad and live fire training will be conducted in parallel with Bradley gunnery; and, as was the case in ODS, some major training activities, such as gunnery, may be continued after another activity has started (because, for example, gunnery training was not completed to standard during the scheduled time).

Finally, we assume that the operator and organizational maintenance can be sustained and the time required is embedded in the time for each activity. However, no time has been allotted for scheduled services, which were not done during the ODS mobilization but could be required under most circumstances in the future.

## TIME ESTIMATES

In developing our post-mobilization time estimates, we explore three cases, labeled optimistic, intermediate, and pessimistic. These estimates span a rather wide set of conditions. The differences in times for the crew gunnery and squad and platoon maneuver depend largely on whether the goals of the DAIG recommendations and Bold Shift initiatives are met during the peacetime pre-mobilization training. The differences for mobilization activities and for task-force-organized training (company team and above) are largely

driven by the range of historical experience for the brigades training during ODS and the peacetime training of AC brigades, and by the DAIG estimates. These cases are outlined in Table 5.

**Optimistic Case.** In the optimistic case, we assume across-the-board success of the Bold Shift initiative in improving ARNG peacetime training:

- The equipment is well-maintained at the brigades' mobilization stations where it is stored and maintained by full-time maintenance personnel, so that little maintenance will be required upon mobilization.<sup>8</sup> We also assume that the brigade is mobilized shortly after Annual Training when skills have peaked and there has been little time for turbulence to affect personnel.
- Crew gunnery skills are high. Crews need only screen on Table VI or VII and fire Table VIII for qualification. Time estimates used for all three cases are based on the assumption that the brigade will have two range complexes available similar to Fort Hood or Fort Polk (one for tanks and one for Bradleys).<sup>9</sup> The time for Tables XI and XII is based on the AC average and the ODS experience for all three cases.
- Squad and platoon skills are also high, and units are able to transition from lower-echelon to higher-echelon training with a minimum review of proficiency (some have suggested a platoon ARTEP exercise). No extensive platoon exercises are required. The time estimate was derived from the platoon training plan developed during ODS at the NTC, which contains a minimum set of tasks.
- Company teams would execute training similar to the ODS training plan developed at the NTC, which would include a

<sup>8</sup>Experience in recent Annual Training programs and the ODS mobilization has shown that equipment maintenance is a crucial function often not well performed. Much time can be required to bring the equipment up to operating standards if it is deficient when drawn. In addition, both RC crews and specialized maintenance personnel in the support battalion have had difficulty performing maintenance and diagnosing problems when they occur. This was a major problem during the ODS mobilization (DAIG, 1991). Thus the condition of maintenance is a key assumption in the optimistic case.

<sup>9</sup>See the schedule in Figure A.1 in the appendix.

**Table 5**  
**Conditions Affecting Three Estimates**

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**Optimistic Estimate: Bold Shift Goals Met**

Mobilization shortly after AT; equipment well maintained  
 Gunnery: Table VI or VII as screen to Table VIII  
 Platoon: Minimum check on proficiency  
 Company teams: Minimum ODS NTC sequences for offense and defense  
 Battalion task force, brigade operations: Minimum DAIG recommendation

**Intermediate Estimate: Bold Shift Goals Largely Met**

Mobilization over 6 months after AT  
 Gunnery: Tables VI–VIII; some turnover and skill loss  
 Platoons: Skills difficult to sustain; some turnover  
 Company and above: Approximately AC–RC averages

**Pessimistic Estimate: Bold Shift Goals Hard to Meet**

Equipment not well maintained  
 Gunnery: Tables IV–VIII; turnover; limited firing between ATs; school conflicts  
 Platoons: Gunnery dominates AT; turnover; limited IDT opportunity  
 Company and above: High side of historical data, more repeat training

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minimum set of offensive and defensive tasks along with specific specialty lanes derived from an analysis of METT-T. As in ODS, some company teams could be specialized. The CALFEX estimates for all three cases are based on AC experience. The one brigade that fired a CALFEX during ODS (11 days) seemed to take too long when compared to the AC experience, which varied from 5 to 8 days. If prior activities are executed to standard, the ARNG brigade should be able to accomplish a CALFEX in comparable time.

- Battalion task force and brigade operations time estimates are based on the minimum (optimistic) DAIG estimates. The training is focused on offensive and defensive tasks.

**Intermediate Case.** In the intermediate case, we assume that the Bold Shift goals are largely met and that mobilization occurs more than six months after the Annual Training period. In addition, we assume that skills have degraded somewhat because of the passage of time, restricted opportunity to practice and sustain skills, and

turnover within units. However, we still expect that equipment is well maintained in peacetime.

- Crew gunnery skills have degraded somewhat, and there has been some crew turbulence since AT, requiring additional time for gunnery preparation. Thus, time is needed for COFT, T/BGST, or T/BCPC. Crews will fire Tables VI, VII, and VIII.
- Squad and platoon skills have been difficult to sustain and there has been some turbulence since AT. Therefore, more time is required to review and hone skills.
- Company teams will also require more time because platoons are not as sharp; thus, the minimum ODS time is probably too short.<sup>10</sup> The time estimate used here is based on the sum of the AC averages for platoon and company team training, which is 26 days (11 plus 15). More time is allocated for training organized as company teams. We assume this because many officials we interviewed suggested that once platoons have achieved minimum skill levels, training time is more effective when they are organized as a company team, where platoon-level training continues.
- Time estimates for battalion task force and brigade operations are based on the ODS experience and the DAIG's recommendations.

**Pessimistic Case.** In the pessimistic case, we assume that the Bold Shift pre-mobilization goals have proven difficult to meet and that the brigade is mobilized well after AT. Units have suffered considerable turnover and crew turbulence. AT attendance has been somewhat lower because soldiers are attending required schools instead of participating in collective training with their unit. Under this scenario, most of AT is devoted to gunnery, leaving little time for maneuver training. Weekend drill training (IDT) is unable to make up the difference because training opportunities are limited and there are serious restrictions on access to ranges. Equipment is not well maintained during peacetime, requiring some time during the post-mobilization period to bring equipment up to standard.

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<sup>10</sup>During ODS, this training was extended somewhat over the original plan.

- Crew gunnery skills have degraded because of limited firing opportunities during IDT periods, and there has been significant crew turbulence since AT. As a result, additional time for gunnery preparation is needed; the time estimate is based on the average ODS experience. Tables IV through VIII will have to be fired for most crews. The time estimate for these tables is based on the AC experience (which is less than the ODS experience), on the assumption that some gunnery can be continued in parallel.
- Squad and platoon skills have been difficult to sustain because AT has been primarily focused on gunnery, and there has been little training opportunity during IDT because of the limited time available and difficulties in gaining access to nearby ranges. The time estimates are based on the ODS experience.
- Company teams will also require more time because platoons will need more work and probably more repeat training. The time estimates from the ODS experience were again used in this case.
- Time estimates for battalion task force and brigade operations are essentially the same as in the intermediate case and are based on the ODS experience and the DAIG's recommendations.

Table 6 shows our estimates of the time required to execute the post-mobilization training program, given the above three sets of assumptions. As discussed above, in contrast to the DAIG, we assume that it takes most of a week for the round-out brigades to move from the mobilization station to the collective training site. Our estimates also include time for drawing equipment, some maintenance, and gunnery preparation. Our optimistic estimates for crew gunnery fall somewhat above those of the DAIG because most of those we have interviewed in both the AC and the ARNG have agreed that a table to screen crews should be fired before Table VIII qualification. They have also suggested that even under the best conditions, the unit will need a minimum review of platoon maneuver operations before beginning company team lanes. Given the ODS minimum company team model, the DAIG time estimate seems too short. Summing all

Table 6

## Time Estimates for Brigade Post-Mobilization Training (in Days)

Maneuver Units	AC Plans	ARNG ODS	DAIG		RAND Estimate		
			Opt. <sup>a</sup>	Pess.	Opt.	Intr.	Pess.
Mobilization Activities							
1. Mobilize, move from home station to mobilization station		4	3	5	3	4	4
2. Move from mobilization station to collective training site		7			6	7	8
3. Prepare for overseas movement and individual training		3	4	7	2	2	3
Crew/Platoon Training							
4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test	7	10			4	7	10
5. Gunnery Tables IV-VIII	21	29 <sup>b</sup>	6	8	14	17	22
6. Gunnery Tables XI-XII	5	6	4	6	5	6	7
7. Squad drills, platoon lanes, STXs	11	11			4	8	11
Training While Task Organized							
8. Company team lanes and STXs	15	22	8	10	14	18	22
9. Company/battalion combined arms live fire exercise (CALFEX)	7	11	5	5	6	7	8
10. Battalion task force operations	6	7			4	6	7
11. Brigade and battalion task force operations (could be at NTC)	14	12	13	17	10	12	12
Training Recovery and Preparation to Move							
12. Maintenance, recovery, and preparation for loading		9	7	14	7	10	14
Total days			50	72	79	104	128

<sup>a</sup>Opt. = optimistic; Intr. = intermediate; Pess. = pessimistic estimate.<sup>b</sup>Gunnery completed in parallel with other activities.

of these activities, our estimates imply a total training program of 79 days in the optimistic case, and up to 128 days in the pessimistic case—assuming that the full range of activities is executed, which is consistent with historical experience.

It is important to remember that these estimates depend particularly on two key assumptions: first, that in each case the ARNG brigade has adequate trainers available; and second, that the unit leadership can complete its own training during the post-mobilization period. The first assumption could be broken in a fast-evolving contingency if parent AC units were deployed early, and no alternative was available. The second assumption might be violated if unit leaders needed to spend the bulk of their time with troops during the early phases of the mobilization period or if the leadership entered the period with a very restricted background in battalion and brigade operations.



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## CONCLUSIONS

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The goal of this analysis was to identify those activities necessary to prepare an RC combat brigade to deploy to a theater, prepared to discharge its assigned mission. We based our inferences on a review of AC training programs, RC mobilization experience during Operation Desert Shield/Storm, information from the Department of the Army Inspector General's analysis of post-mobilization training, and observations and data from the 1992 experience of the Bold Shift RC training enhancement program for combat brigades. From these data, we identified four categories containing 12 separate activities.

### ASSUMPTIONS AND POST-MOBILIZATION TIME ESTIMATES

To determine how long it might take a unit to achieve this proficiency, we had to make five key assumptions about conditions during a future post-mobilization training period. We assumed that:

- Sufficient training support would be available to the unit (normally from an AC unit).
- Both gunnery and collective training would take place at one location.
- Units would have to travel from their mobilization station to the collective training site.
- Some simultaneous training would occur, particularly for the higher-level leadership.

- Unit-level maintenance could be sustained as an integral part of the training time allotted.

Given these assumptions, we framed three possible post-mobilization training scenarios: optimistic, intermediate, and pessimistic. Each scenario reflects a different level of possible success for the Bold Shift initiatives, ranging from meeting all expectations for the optimistic scenario to failing in many of them in the pessimistic case. Each case also assumes an increasingly deleterious effect from skill atrophy and personnel turbulence. Table 7 shows our estimates for the three cases.

**Table 7**  
**Post-Mobilization Time Estimates**  
**for Three Cases**

Case	Days Required
Optimistic	79
Intermediate	104
Pessimistic	128

Two very important caveats about these estimates bear special mention. First, these estimates assume that the RC company, battalion, and brigade leadership can complete their own training for command and control of their level of organization during the post-mobilization period. Our estimates deal primarily with the time required to “train the troops,” assuming that any required leadership enhancement can proceed in parallel. Second, the estimates assume that adequate AC “cover-down” personnel are available for training support and evaluation during the post-mobilization period. Under some scenarios, this might not be the case (for example, if the AC division must deploy to combat before its round-out RC brigade is ready). Under such circumstances, the source of trainers is not clear given current Army planning, and therefore the estimates of post-mobilization time might change.

## **MONITORING PROFICIENCY AND POST-MOBILIZATION PLANS**

The results of this analysis suggest considerable uncertainty about the future peacetime proficiency of RC combat units. This makes planning for post-mobilization training all the more uncertain. This is particularly so because the situation is in flux, as the Army continues Bold Shift and related efforts to refocus and improve RC training. To reduce this uncertainty about peacetime proficiency, gunnery and maneuver lane results, as well as data on personnel stability and MOS qualification, will have to be gathered over a period of several years. And, as the nature and status of peacetime training become more stable, the Army may wish to institute post-mobilization test programs, for example, by bringing RC units to an extended Annual Training period to simulate the first portion of a projected post-mobilization training process.

## Appendix

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### DETAILED TRAINING PROGRAM DATA

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This appendix provides detailed data describing the training plans for specific AC units' training schedules (Table A.1) and the training programs carried out by the 48th, 155th, and 256th Brigades during the Operation Desert Shield training period (Tables A.2 through A.4). These data are summarized in tables in the main body of this report.

Figure A.1 also shows a typical gunnery sequence fired by a brigade at Fort Hood, Texas. The upper panel shows Bradley Table firing events (Tables V through VIII and XI to XII, running from day 1 through day 9). The lower panel shows Tank Table firing events for tank battalions 1 and 2 (Tables V through VIII and XI to XII, ranging from day 1 through day 24).

**Table A.1**  
**Days in Individual AC Units' Training Schedules**

Activities	AC Avg	1st Bde 5th Div	2nd Bde 5th Div	4th Div	2nd Bde 1st Cav	2nd Bde 24th Div
<b>Mobilization Activities</b>						
1. Mobilize, move from home station to mobilization station						
2. Move from mobilization station to collective training site						
3. Prepare for overseas movement and individual training						
<b>Crew/Platoon Training</b>						
4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test	7	5	6		9	
5. Gunnery Tables IV-VIII	21	21	21	22	20	
6. Gunnery Tables XI-XII	5	7	5	6	4	
7. Squad drills, platoon lanes, STXs	11	9	10	21	7	10
<b>Training While Task Organized</b>						
8. Company team lanes and STXs	15	22	10	21	12	9
9. Company/battalion combined arms live fire exercise (CALFEX)	7	8		7	5	
10. Battalion task force operations	6	5		7	6	
11. Brigade and battalion task force operations (at NTC)	14	14	14	14	14	14

**Table A.2**  
**ODS Training Days for the 48th Brigade**

Activities	AC Plans	ODS Avg	48th at Fort Stewart, Fort Benning, and NTC
<b>Mobilization Activities</b>			
1. Mobilize, move from home station to mobilization station		4	4
2. Move from mobilization station to collective training site		7	12 + 3 Move and draw at NTC
3. Prepare for overseas movement and individual training		3	2
<b>Crew/Platoon Training</b>			
4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test	7	10	5 Pre-mobilization team draw equipment
5. Gunnery Tables IV-VIII	21	29	10 Bradleys at Benning (43%) Tanks at Stewart (13%) More in parallel at NTC
6. Gunnery Tables XI-XII	5	6	
7. Squad drills, platoon lanes, STXs	11	11	7
<b>Training While Task Organized</b>			
8. Company team lanes and STXs	15	22	26
9. Company/battalion combined arms live fire exercise (CALFEX)	7		No CALFEX or Table XII but similar live fire at NTC
10. Battalion task force operations	6	7	10
11. Brigade and battalion task force operations(at NTC)	14	12	12 NTC rotation
<b>Training Recovery and Preparation to Move</b>			
12. Maintenance, recovery, and preparation for loading		10	7 Did not train on own vehicles
<b>Total days</b>			98

**Table A.3**  
**ODS Training Days for the 155th Brigade**

Activities	AC Plans	ODS Avg	155th at Camp Shelby, Fort Hood, and NTC
<b>Mobilization Activities</b>			
1. Mobilize, move from home station to mobilization station		4	4
2. Move from mobilization station to collective training site		7	8
3. Prepare for overseas movement and individual training		3	3
<b>Crew/Platoon Training</b>			
4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test	7	10	11
5. Gunnery Tables IV-VIII	21	29	25 Table VIII completed (> 25 days) in parallel with CALFEX
6. Gunnery Tables XI-XII	5	6	No Table XII for armor
7. Squad drills, platoon lanes, STXs	11	11	8 Platoon attack and defend (43% rated "U")
<b>Training While Task Organized</b>			
8. Company team lanes and STXs	15	22	6 Company attack and defend (41% rated "U")
9. Company/battalion combined arms live fire exercise (CALFEX)	7	11	11
10. Battalion task force operations	6	7	5 TF attack and defend (100% rated "U")
11. Brigade and battalion task force operations (at NTC)	14	12	12 NTC rotation (+13 days travel not included)
<b>Training Recovery and Preparation to Move</b>			
12. Maintenance, recovery, and preparation for loading		10	6 NTC turn-in only

Total days

99

NOTE: "U" rating indicates task was untrained.

**Table A.4**  
**ODS Training Days for the 256th Brigade**

Activities	AC Plans	ODS Avg	256th at Fort Polk and Fort Hood
<b>Mobilization Activities</b>			
1. Mobilize, move from home station to mobilization station		4	4
2. Move from mobilization station to collective training site		7	6
3. Prepare for overseas movement and individual training		3	3
<b>Crew/Platoon Training</b>			
4. Maintenance, gunnery preparation, COFT, tank/Bradley crew gunnery skills test	7	10	11
5. Gunnery Tables IV-VIII	21	29	34 Table VIII completed (>34 days) in parallel with maneuver
6. Gunnery Tables XI-XII	5	6	6
7. Squad drills, platoon lanes, STXs	11	11	14
<b>Training While Task Organized</b>			
8. Company team lanes and STXs	15	22	17
9. Company/battalion combined arms live fire exercise (CALFEX)	7	11	No CALFEX
10. Battalion task force operations	6	7	7
11. Brigade and battalion task force operations	14	12	No NTC rotation
<b>Training Recovery and Preparation to Move</b>			
12. Maintenance, recovery, and preparation for loading		10	10
<b>Total days</b>			112



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RANGE	Day 1	GUNNERY TABLES	Day 24
Jack Mtn	1	BT V/VI 8	
Henson Mtn	4	BT VII 11	
Jack Mtn	7	BT VIII 14	
Browns Creek	9	BT XI 16	
Crittenberger	12	BT XII 19	
Brookhaven	1	TT V 7 8 14 BN 1 BN 2	
Trapnell	3	TT VI 9 10 16	
Sugarloaf	5	TT VII 11 12 18	
Blackwell	7	TT VIII 13 14 20	
Phantom Run	9	TT XI 15 16 22	
Clabber Creek	11	TT XII 17 18 24 BN 1 BN 2	

NOTE: BT = Bradley Table; TT = Tank Table; BN = Battalion.

Figure A.1—Fort Hood Gunnery Schedule

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